

## What is Claimed Is:

- [c1] 1.A method for analyzing buffer usage, comprising the steps of:  
assigning a unique ownership tag to a buffer using component;  
allocating a memory buffer to the buffer using component during task performance;  
tagging the allocated memory buffer with the unique ownership tag as the memory buffer is used for task performance;  
completing task performance by the buffer using component;  
searching all available memory buffers for the unique memory ownership tag;  
and  
determining whether any memory buffer is assigned the unique ownership tag.
- [c2] 2.The method of claim 1, further comprising the step of generating a log of occurrences of the unique memory ownership tag, indicating memory buffers which have not been reallocated to a buffer pool.
- [c3] 3.The method of claim 1, further comprising the step of automatically notifying a system administrator if it is determined that any memory buffer is assigned the unique ownership tag.
- [c4] 4.The method of claim 3, wherein the step of automatically notifying a system administrator further comprises periodically notifying the system administrator.
- [c5] 5.A method of analyzing buffer usage, comprising the steps of:  
assigning unique ownership tags to a plurality of buffer using components;  
allocating memory buffers to the plurality of buffer using components during task performance;  
tagging the allocated memory buffers with the unique ownership tags as the memory buffers are used for task performance;  
identifying a system failure;  
searching all available memory buffers for the unique memory ownership tags;  
and  
determining whether any memory buffer is assigned any unique ownership tag.
- [c6] 6.The method of claim 5, further comprising the step of generating a log of

occurrences of the unique memory ownership tags, indicating memory buffers which have not been reallocated to a buffer pool.

[c7] 7.A system for analyzing buffer usage, comprising:  
processor means for assigning a unique ownership tag to a buffer using component;  
processor means for allocating a memory buffer to the buffer using component during task performance;  
processor means for tagging the allocated memory buffer with the unique ownership tag as the memory buffer is used for task performance; and  
buffer checker means for searching all available memory buffers for the unique memory ownership tag, upon completion of the task by the buffer using component,  
the buffer checking means further determining whether any memory buffer is assigned the unique ownership tag.

[c8] 8.The system of claim 7, further comprising means for generating a log of occurrences of the unique memory ownership tag, indicating memory buffers which have not been reallocated to a buffer pool.

[c9] 9.The system of claim 7, further comprising means for automatically notifying a system administrator if it is determined that any memory buffer is assigned the unique ownership tag.

[c10] 10.The system of claim 9, wherein means for automatically notifying a system administrator further comprise means for periodically notifying the system administrator.

[c11] 11.A system of analyzing buffer usage, comprising:  
processor means for assigning unique ownership tags to a plurality of buffer using components;  
processor means for allocating memory buffers to the plurality of buffer using components during task performance;  
processor means for tagging the allocated memory buffers with the unique ownership tags as the memory buffers are used for task performance;

processor means for identifying a system failure; and  
buffer checker means for searching all available memory buffers for the unique memory ownership tags,  
the buffer checker means further determining whether any memory buffer is assigned any unique ownership tag.

[c12] 12.The system of claim 11, further comprising means for generating a log of occurrences of the unique memory ownership tags, indicating memory buffers which have not been reallocated to a buffer pool.

[c13] 13.A computer readable medium incorporating one or more instructions for analyzing buffer usage, the instructions comprising:  
one or more instructions for assigning a unique ownership tag to a buffer using component;  
one or more instructions for allocating a memory buffer to the buffer using component during task performance;  
one or more instructions for tagging the allocated memory buffer with the unique ownership tag as the memory buffer is used for task performance;  
one or more instructions for completing task performance by the buffer using component;  
one or more instructions for searching all available memory buffers for the unique memory ownership tag; and  
one or more instructions for determining whether any memory buffer is assigned the unique ownership tag.

[c14] 14.The computer readable medium of claim 13, the instructions further comprising one or more instructions for generating a log of occurrences of the unique memory ownership tag, indicating memory buffers which have not been reallocated to a buffer pool.

[c15] 15.The computer readable medium of claim 13, the instructions further comprising one or more instructions for automatically notifying a system administrator if it is determined that any memory buffer is assigned the unique ownership tag.

[c16] 16.The computer readable medium of claim 15, wherein the one or more instructions for automatically notifying a system administrator further comprise one or more instructions for periodically notifying the system administrator.

[c17] 17.A computer readable medium incorporating one or more instructions for analyzing buffer usage, the instructions comprising:  
one or more instructions for assigning unique ownership tags to a plurality of buffer using components;  
one or more instructions for allocating memory buffers to the plurality of buffer using components during task performance;  
one or more instructions for tagging the allocated memory buffers with the unique ownership tags as the memory buffers are used for task performance;  
one or more instructions for identifying a system failure;  
one or more instructions for searching all available memory buffers for the unique memory ownership tags; and  
one or more instructions for determining whether any memory buffer is assigned any unique ownership tag.

[c18] 18.The computer readable medium of claim 17, the instructions further comprising one or more instructions for generating a log of occurrences of the unique memory ownership tags, indicating memory buffers which have not been reallocated to a buffer pool.